

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously presented) A medical imaging system comprising:
 - acquisition means for acquiring a volume of three-dimensional (3D) digital data comprising at least one object of interest;
 - means for segmenting a region of interest comprising said object of interest within said volume of 3D data into a segmented region of interest;
 - means for displaying a two-dimensional (2D) representation of said volume of 3D data and said segmented region of interest;
 - means for determining a sub-regions map within said segmented region of interest; and
 - correction means for correcting the segmented region of interest using said sub-regions map.
2. (Previously presented) The medical imaging system as claimed in Claim 1, wherein said means for determining the sub-regions map comprise means for calculating watersheds to form a first sub-regions map within the segmented region of interest.
3. (Previously presented) The medical imaging system as claimed in Claim 2, wherein said means for determining the sub-regions map further comprise means for calculating a map of distances, said means for calculating watersheds forming the first sub-regions map based on said map of distances.

4. (Previously presented) The medical imaging system as claimed in Claim 2, wherein said means for determining the sub-regions map further comprise means for merging sub-regions of the first map to form a second sub-regions map.

5. (Currently amended) The medical imaging system as claimed in Claim 1, further comprising[[:]] control means for enabling a user to select the sub-regions to be excluded.

6. (Currently amended) The medical imaging system as claimed in Claim 1, wherein said means for displaying the 2D representation display updates ~~which~~that take into account the corrected segmented region of interest provided by the correction means.

7. (Currently amended) The medical imaging system as claimed in Claim 1, further comprising[[:]] labeling means for labeling the sub-regions map of the segmented region of interest.

8. (Currently amended) A device for correcting a segmented region, configured to be integrated in a medical imaging system ~~which~~that acquires a volume of data and to segment a region of interest around an object of interest within said volume of data, said device comprising:

means for calculating a sub-regions map within the segmented region; and
correction means for excluding sub-regions of said region of interest based on said sub-regions map.

9. (Currently amended) The medical imaging system as claimed in Claim 1, further comprising[[:]] a medical imager comprising means for forming the volume of 3D digital data representing an environment including the object of interest.

10. (Currently amended) A method of correcting, in an imaging system, a segmented region of interest derived from a volume of three-dimensional (3D) digital data comprising at least one object of interest, the method comprising:

- calculating a sub-regions map within the segmented region; and
- excluding sub-regions of the segmented region based on the sub-regions map.

11. (Canceled)